ACKNOWLEDGEMENTS

We are deeply indebted to Prof. S. Mashhood Alam, Head, Department of Zoology, for providing research facilities. Thanks are also due to Prof. Nawab H. Khan, for encouragement. One of us (M.Y.K.) is thankful to the U.G.C., New Delhi for financial assistance during the tenure of this work.

REFERENCE

KHAN, M. Y. & SHAFEE, S. A. (1980): Taxonomic studies on some Eulophid parasites (Hymenoptera: Chalcidoidea). *J. Bombay Nat. Hist. Soc.* 76 (2): 324-334.

NEW SPECIES OF THE GENUS CHRYSONOTOMYIA ASHMEAD (HYMENOPTERA: EULOPHIDAE) FROM INDIA¹

M. YOUNUS KHAN AND S. ADAM SHAFEE²

(With sixteen text-figures)

The genus Chrysonotomyia was proposed by Ashmead (1904) for the species Eulophus auripunctatus Ashmead. Recently, Boucek (1977) included the genus Achrysocharis Girault in the synonym of Chrysonotomyia Ashmead. The distinguishing characters of this genus have been given by Ashmead (1904). We suggest some new generic characters, which are as follows: Pronotum with posterior margin much curved, anterolateral angles acute (Fig. D); first valvifers triangular with basal and apical angles at different levels (Fig. J); third valvulae short, movably articulated with second valvifers (Fig. K); outer plates of ovipositor long, narrow at base with a submarginal ridge along basal two-third of dorsal margin (Fig. L).

Chrysonotomyia kerrichi sp. nov. (Figs. A-M)

Female

HEAD.—Orange yellow, slightly wider than long in facial view (0.44:0.4 mm); frontover-

¹ Accepted September 1980.

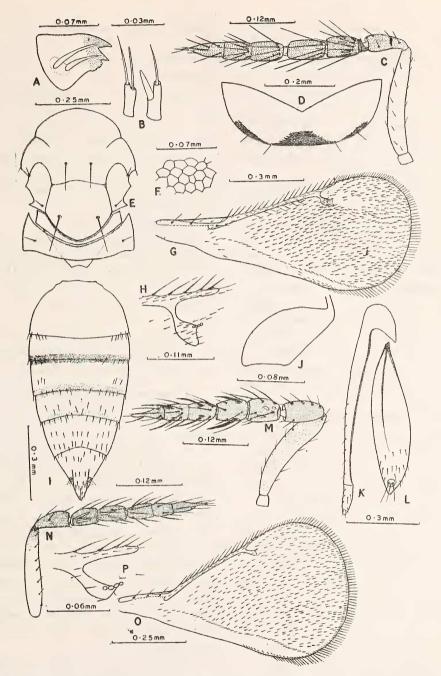
tex slightly longer than wide, width one-third the total head width; ocelli red, arranged in equilateral triangle, lateral ocelli less than their own diameters from orbital margin and twice their own diameters from occipital margin; eyes red and sparsely setose; antennae inserted at lower level of eyes; prominence between antennal sockets about one-half the width of frons between eyes; malar space much shorter than eye width; malar sutures absent; mandibles tridentate with two acute teeth and a truncation which is serrated (Fig. A); maxillary and labial palpi each 1-segmented (Fig. B).

ANTENNAE (Fig. C).—Yellowish brown except scape which is yellow; 7-segmented excluding 2 ring segments; scape cylindrical, six times as long as wide (0.18:0.03 mm); pedicel more than twice as long as wide, longer than first funicle segment and subequal to second; funicle 2-segmented, first one and a half times as long as wide, second twice as long as wide and longer than first; club 3-segmented, five times as long as wide, much longer than funicle.

THORAX (Fig. E).--Yellowish except mesos-

² Section of Entomology, Department of Zoology, Aligarh Muslim University, Aligarh, India.

NEW DESCRIPTIONS



Figs. A-M. Chrysonotomyia kerrichi sp. nov., \(\chi, \lambda : (A) \) Mandible, \(\varphi ; (B) \) Maxillary and labial palpi, \(\varphi ; (C) \) Antenna, \(\varphi ; (D) \) Pronotum, \(\varphi ; (E) \) Propodeum and part of thorax in dorsal view, \(\varphi ; (F) \) Sculpture of mesoscutum, \(\varphi ; (G) \) Fore wing, \(\varphi ; (H) \) Part of fore wing venation, \(\varphi ; (I) \) Abdomen in dorsal view, \(\varphi ; (J) \)-First valvifer, \(\varphi ; (K) \) Second valvifer and third valvula, \(\varphi ; (L) \) Outer plate of ovipositor, \(\varphi ; (M) \) Antenna, \(\delta : (A) \)

N.P. Chrysonotomyia latipennis sp. nov., $\mathfrak{P}:(N)$ Antenna, (O) Fore wing, (P) Part of fore wing venation.

cutum and mid of scutellum with metallic green reflections; pronotum with posterior margin much curved bearing two pairs of small setae, antero-lateral angles acute (Fig. D); mesoscutum and scutellum reticulately sculptured and each with a pair of long setae and without longitudinal grooves; parapsidal furrows distinct anteriorly; mesopostpharagma reaching just beyond the propodeum; propodeum without median carina.

FORE WINGS (Fig. G).—Hyaline, more than twice as long as wide (1.26:0.56 mm), rounded at apex; a line of hairs extending distad of the stigmal vein to the wing margin, space between the line and front wing margin bare, another hair line (cubital) extending obliquely apex of submarginal vein to the base of outer wing margin; costal cell shorter than marginal vein and with 2 small setae; submarginal and marginal veins with 2 and 16 setae respectively; postmarginal vein as long as stigmal vein (0.08:0.08 mm) (Fig. H); marginal fringe short, spaced by a distance equal to one-third their length.

HIND WINGS.—Hyaline, four and a half times as long as wide (0.63: 0.14 mm); marginal fringe one-third the wing width, spaced by a distance equal to one-third their length.

LEGS.—Orange yellow; tarsi 4-segmented; middle tibial spur shorter than basitarsus.

ABDOMEN. (Fig. I).—Yellow except dorsum with three brown transverse bands, longer than head and thorax together (0.88:082 mm); ovipositor slightly exserted, arising from base of abdominal venter; first valvifers with basal and apical angles at different levels (Fig. J); anterior margin of basal part of second valvifers much curved and U-shaped, third valvulae three times as long as wide, one-sixth the length of second valvifers (Fig. K); outer plates of ovipositor long, narrow at base with a submarginal ridge along basal three-fourth of outer margin (Fig. L).

Female length: 1.7 mm.

Male

Resembles female except in the following characters:

Antennae with 1 ring segment; scape five and a half times as long as wide (0.17:0.03 mm); pedicel twice as long as wide; club four times as long as wide (0.16:0.04 mm) (Fig. M); costal cell without setae; marginal vein with 11 setae; postmarginal vein longer than stigmal vein; abdominal dorsum with 6 transverse brown bands.

Male length: 0.98 mm.

Holotype Q. INDIA: Uttar Pradesh, Aligarh, Jawahar park ex psyllid in leaf galls of Grewia asiatica Linn., 2.ix.1975 (M. Younus Khan).

Paratypes 8 \circ , 1 \circ (same data as holotype).

This species is named for Dr. G. J. Kerrich, in recognition of his contribution to our knowledge of the Chalcidoidea.

Chrysonotomyia latipennis sp. nov. (Figs. N-P)

Female

HEAD.—Dark with metallic green reflections except clypeal region which is yellow and reticulately sculptured, wider than long in facial view; frontovertex as wide as long, width more than one-third the total head width; ocelli yellowish, arranged in equialteral triangle, lateral ocelli by their own diameters from orbital margin and twice their own diameters from occipital margin; eyes red and smooth; antennae inserted above lower level of eyes: malar space shorter than eye width; malar sutures absent; maxillary and labial palpi each 1-segmented.

ANTENNAE (Fig. N).—Yellowish brown except scape which is yellow, 7-segmented excluding 1 ring segment; scape cylindrical, five times as long as wide (0.15:0.03 mm); pedicel

twice as long as wide, longer than first funicle segment; funicle 2- segmented, first one and a half times as long as wide, second twice as long as wide and slightly longer than first; club 3-segmented, five times as long as wide (0.15:0.03 mm), much longer than funicle.

THORAX.—Mesoscutum, parapsides, aixllae except base, mid of scutellum, propodeum, meso and meta sternites dark with metallic reflections rest of the thorax yellow; parapsidal furrows distinct anteriorly; each parapside without transverse suture; mesoscutum and scutellum with 4 and 2 setae respectively; propodeum smooth without median carina.

FORE WINGS (Fig. O).—Hyaline, less than twice as long as wide, apex broadly rounded; a line of hairs extending distad of the stigmal vein to the wing margin, space between the line and front margin of wing bare, another hair line (cubital) extending obliquely apex of submarginal vein to the base of outer wing margin; costal cell very narrow, much shorter than marginal vein; submarginal and marginal veins with 3 and 12 setae respectively; postmarginal vein longer than stigmal vein (Fig. P); stigmal vein of uniform width; marginal fringe short, spaced by a distance equal to one-third their length.

HIND WINGS.—Hyaline, five times as long as wide; marginal fringe about one-half the wing width, spaced by a distance equal to one-fourth their length.

LEGS.—Yellowish white except coxae which are slightly infuscated; tarsi 4-segmented; middle tibial spur shorter than basitarsus.

ABDOMEN.—Yellow except base of dorsum and venter completely dark with metallic re-

flections; longer than head and thorax together; ovipositor slightly exserted, arising from base of abdominal venter.

Female length: 1.15 mm.

Holotype Q. INDIA: Uttar Pradesh, Aligarh, Hardwagunj ex in leaf galls of Mangifera indica Linn., 31.xii.1974 (M. Younus Khan).

Chrysonotomyia postmarginaloides (Saraswat) comb. nov.

Tetrastichus postmarginaloides Saraswat, 1975: 19-22.

A close study of the Indian species of the genera Tetrastichus Haliday and Chrysonotomyia Ashmead, and the details on the characters of the species Tetrastichus postmarginaloides Saraswat do give an impression that there are certain characters namely absence of grooves on mesoscutum and scutellum, presence of style on the last club segment, fore wings with long postmarginal vein and prsence of a line of hairs between distad of stigmal vein and wing margin (Saraswat 1975, fig. 8 A-K), which agrees in every respect with the generic diagnosis of the genus Chrysonotomvia Ashmead. Therefore, Tetrastichus postmarginaloides Saraswat is here transferred to Chrysonotomyia.

ACKNOWLEDGEMENTS

We are deeply indebted to Prof. S. Mashhood Alam, Head, Department of Zoology, for providing research facilities. Thanks are also due to Prof. Nawab H. Khan, for encouragment. One of us (M.Y.K.) is thankful to the U.G.C., New Delhi for financial assistance during the tenure of this work.

REFERENCES

ASHMEAD, W. H. (1904): Classification of the chalcid-flies or the super-family Chalcidoidea, with descriptions of new species in the Carnegie Museum, collected in South America by Herbert H. Smith. Mem. Carneg. Mus. 1: 225-555.

BOUCEK, Z. (1977): Descriptions of two new

species of Neotropical Eulophidae (Hymenoptera) of economic interest, with taxonomic notes on related species and genera. Bull. ent. Res. 67: 1-15.

SARASWAT, G. G. (1975): On some *Tetrastichus* (Hymenoptera: Chalcidoidea) from India. *Mem. School Ent. St. John's Coll. Agra* 4: 1-34.